Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **(Currently Amended)** A cable modem comprising:

a first interface for receiving data from a cable media; **[[and]]**

a pattern matching engine that evaluates patterns in the data that is received at the first

interface of the cable modem and that enables the determination of appropriate procedures for

5   treatment of the data; **and**

wherein the pattern matching engine is a programmable pattern matching engine

that may be programmed according to patterns that are desired to be matched during

various operations of the cable modem.

2. **(Original)** The cable modem of claim 1 wherein the pattern matching engine is

10   configured to match address segments of the data that is received at the first interface of the

cable modem.

Claim 3 (Canceled).

4. **(Original)** The cable modem of claim 1 wherein the pattern matching engine

enables determination of whether to accept a frame at the cable modem quicker than if the

cable modem were required to wait on processing at a central microprocessor.

5. **(Original)** The cable modem of claim 1 wherein the pattern matching engine

enables pattern matching of various length frame portions.

6. **(Original)** The cable modem of claim 5 wherein the various length frame portions are

selected from the group consisting of bit length, byte length, word length, double word length,

kilobyte length, and megabyte length.

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Claims 7-10 (Canceled).

11. **(Currently amended)** A method for a communication device to compare a
predetermined pattern to a pattern that corresponds to a portion of a data frame, the method
comprising:

determining acceptable parameters for the data frames that are to be received at the
communication device;

programming the acceptable parameters into a pattern matching engine in the
communication device;

receiving [[a]] data [[frame]] at the communication device;

parsing the data [[frame]] to obtain a predetermined portion of the data [[frame]]; and

comparing the predetermined portion of the data [[frame]] with the acceptable
parameters stored in the pattern matching engine.

12. **(Original)** The method of claim 11 further comprising registering the result of the
comparison in a suitable format for access by a microprocessor.

13. **(Original)** The method of claim 12 further comprising reading the registered
results with a microprocessor such that the microprocessor may determine whether to drop or
accept the data frame that has been received at the communication device.

14. **(Original)** The method of claim 12 wherein the predetermined portion of the data
frame is an address portion of the data frame.

15. **(NEW)** The cable modem of claim 1 wherein the patterns in the data comprise one or
more of a MAC address, an IP address, and a protocol identifier (PID) of an MPEG frame.

16. **(NEW)** The cable modem of claim 1 wherein the operations of the cable modem comprise one or more of logical link control (LLC) filtering, protocol identifier (PID) filtering, and security ID (SID) filtering in a Multimedia Cable Network System (MCNS).

17. **(NEW)** The cable modem system of claim 1 further comprising a DES/CRC engine performing DES decryption or CRC processing of a received data frame after a microprocessor receives data from the pattern matching engine and determines to accept a received frame based on the data received from the pattern matching engine.

18. **(NEW)** A system for receiving data comprising:

a programmable pattern matching engine receiving a pattern and a data stream and generating an index entry if the pattern is present in the data stream;

a microprocessor reading the index entry and determining whether to continue receipt of the data stream; and

a CRC engine performing CRC processing of a received data frame if the microprocessor determines to continue receipt of the data stream.

19. **(NEW)** The system of claim 18 further wherein the pattern comprises one or more of a MAC address, an IP address, and a protocol identifier (PID) of an MPEG frame.

20. **(NEW)** The system of claim 18 wherein the programmable pattern matching engine performs one or more of address filtering, logical link control (LLC) filtering, protocol identifier (PID) filtering, and security ID (SID) filtering in a Multimedia Cable Network System (MCNS)

21. **(NEW)** The system of claim 18 further comprising a cable modem DMA controller coupled to the microprocessor, the programmable pattern matching engine, and the DES/CRC engine, the cable modem DMA controller facilitating movement of data between the microprocessor, the programmable pattern matching engine, and the DES/CRC engine.

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22. **(NEW)** The system of claim 18 wherein the microprocessor comprises a programmable media access controller.

23. **(NEW)** The system of claim 18 wherein the CRC engine further comprises a DES/CRC engine performing DES decryption or CRC processing of a received data frame if the microprocessor determines to continue receipt of the data stream.

24. **(NEW)** The method of claim 11 wherein programming the acceptable parameters into the pattern matching engine in the communication device comprises programming one or more of a MAC address, an IP address, and a protocol identifier (PID) of an MPEG frame.

25. **(NEW)** The method of claim 11 wherein programming the acceptable parameters into the pattern matching engine in the communication device comprises programming one or more parameters used to perform logical link control (LLC) filtering, protocol identifier (PID) filtering, and security ID (SID) filtering in a Multimedia Cable Network System (MCNS).